

PCB terminal block - MKDSO 2,5/ 3-R KMGY - 2854092

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PCB terminal block, nominal current: 24 A, rated voltage (III/2): 400 V, nominal cross section: 2.5 mm², pitch: 5 mm, number of positions: 3, connection method: Screw connection with tension sleeve, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: light gray, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm. Article with lateral pin exit

Your advantages

- ✓ PCB terminal block for ME/ME MAX electronics housing
- ✓ PCB terminal block orthogonal to the PCB
- ✓ 5 mm pitch
- ✓ PCB terminal block for series ME MAX and ME electronic housings
- ✓ Maintenance-free and vibration-resistant, thanks to the Reakdyn principle or spring-loaded elements
- ✓ PCB terminal block is orthogonal to the PCB
- ✓ Internationally recognized and proven screw connection



Key Commercial Data

| | |
|--------------|---------------|
| Packing unit | 250 pc |
| GTIN | |
| GTIN | 4017918459017 |

Technical data

Item properties

| | |
|---------------------------|--------------------------------------|
| Brief article description | PCB terminal block |
| Range of articles | MKDSO 2,5/..-R |
| Pitch | 5 mm |
| Number of positions | 3 |
| Connection method | Screw connection with tension sleeve |
| Screw thread | M3 |
| Mounting type | Wave soldering |
| Pin layout | Linear pinning |
| Number of levels | 1 |

PCB terminal block - MKDSO 2,5/ 3-R KMGY - 2854092

Technical data

Electrical parameters

| | |
|-----------------------------|-------|
| Nominal current | 24 A |
| Nom. voltage | 400 V |
| Rated voltage | 250 V |
| Rated voltage (III/2) | 400 V |
| Rated voltage (II/2) | 630 V |
| Rated surge voltage (III/3) | 4 kV |
| Rated surge voltage (III/2) | 4 kV |
| Rated surge voltage (II/2) | 4 kV |

Connection capacity

| | |
|---|---|
| Connection method | Screw connection with tension sleeve |
| Conductor cross section solid | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross section flexible | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross section AWG / kcmil | 26 ... 14 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm ² ... 2.5 mm ² |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.25 mm ² ... 2.5 mm ² |
| 2 conductors with same cross section, solid | 0.14 mm ² ... 0.75 mm ² |
| 2 conductors with same cross section, flexible | 0.14 mm ² ... 0.75 mm ² |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve | 0.25 mm ² ... 0.75 mm ² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm ² ... 1.5 mm ² |
| Stripping length | 8 mm |
| Torque | 0.5 Nm ... 0.6 Nm |

Material data - contact

| | |
|---|---|
| Note | WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/ JEDEC JESD 201 |
| Contact material | Cu alloy |
| Surface characteristics | Tin-plated |
| Metal surface terminal point (top layer) | Tin (5 - 7 µm Sn) |
| Metal surface terminal point (middle layer) | Nickel (2 - 3 µm Ni) |
| Metal surface soldering area (top layer) | Tin (5 - 7 µm Sn) |
| Metal surface soldering area (middle layer) | Nickel (2 - 3 µm Ni) |

Material data - housing

| | |
|--|-------------------|
| Housing color | light gray (7035) |
| Insulating material | PA |
| Insulating material group | I |
| CTI according to IEC 60112 | 600 |
| Flammability rating according to UL 94 | V0 |
| Glow wire flammability index GWFI according to EN 60695-2-12 | 850 |
| Glow wire ignition temperature GWIT according to EN 60695-2-13 | 775 |

PCB terminal block - MKDSO 2,5/ 3-R KMGY - 2854092

Technical data

Material data - housing

| | |
|---|--------|
| Temperature for the ball pressure test according to EN 60695-10-2 | 125 °C |
|---|--------|

Dimensions for the product

| | |
|-----------------------------|--------------|
| Length [L] | 15.3 mm |
| Pitch | 5 mm |
| Height (without solder pin) | 18 mm |
| Solder pin [P] | 3.5 mm |
| Pin dimensions | 1.1 x 0.8 mm |

Dimensions for PCB design

| | |
|---------------|--------|
| Hole diameter | 1.4 mm |
|---------------|--------|

Packaging information

| | |
|----------------------------|------|
| Pieces per package | 250 |
| Denomination packing units | Pcs. |

Ambient conditions

| | |
|---|---|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Ambient temperature (assembly) | -5 °C ... 100 °C |
| Ambient temperature (operation) | -40 °C ... 105 °C (Depending on the current carrying capacity/derating curve) |

Termination and connection method

| | |
|--|-----------------------|
| Test for conductor damage and slackening | IEC 60998-2-1:1990-04 |
| | Test passed |

Pull-out test

| | |
|--|--|
| Pull-out test | IEC 60998-2-1:1990-04 |
| | Test passed |
| Conductor cross section / conductor type / tensile force | 0.14 mm ² / solid / > 10 N |
| | 0.14 mm ² / flexible / > 10 N |
| | 2.5 mm ² / solid / > 50 N |
| | 2.5 mm ² / flexible / > 50 N |

Mechanical tests according to standard

| | |
|--------------------|--------------------------|
| Test specification | IEC 60998-2-1 (in parts) |
|--------------------|--------------------------|

Electrical tests

| | |
|-----------------------------|---------------------|
| Rated current | 24 A |
| Conductor cross section | 2.5 mm ² |
| Rated voltage (III/2) | 400 V |
| Rated surge voltage (III/2) | 4 kV |

Air clearances and creepage distances

| | |
|-----------------------------------|---------------------|
| Clearances and creepage distances | IEC 60664-1:2007-04 |
| Specification | IEC 60664-1:2007-04 |

PCB terminal block - MKDSO 2,5/ 3-R KMGY - 2854092

Technical data

Air clearances and creepage distances

| | |
|---|--------|
| Minimum clearance - inhomogeneous field (III/3) | 3 mm |
| Minimum clearance - inhomogeneous field (III/2) | 3 mm |
| Minimum clearance - inhomogeneous field (II/2) | 3 mm |
| Minimum creepage distance value (III/3) | 3.2 mm |
| Minimum creepage distance value (III/2) | 2 mm |
| Minimum creepage distance value (II/2) | 3.2 mm |

Temperature-rise test

| | |
|-----------------------------------|-------------------------------------|
| Specification | IEC 60998-2-1:1990-04 |
| Result | Test passed |
| Requirement temperature-rise test | Increase in temperature ≤ 45 K |

Current carrying capacity / derating curves

| | |
|---------------------|--|
| Caption | Type: MKDSO 2,5/4...L(R) Test based on DIN EN 60512-5-2:2003-01 Reduction factor = 1 Number of positions: 4 |
| Specification | Following IEC 60512-5-2:2002-02 |
| Number of positions | 4 |
| Reduction factor | 1 |

Vibration test

| | |
|------------------------|------------------------|
| Specification | IEC 60068-2-6:1995-03 |
| Result | Test passed |
| Frequency | 10 - 150 - 10 Hz |
| Sweep speed | 1 octave/min |
| Amplitude | 0.35 mm (10 - 60.1 Hz) |
| Acceleration | 5 g (60.1 - 150 Hz) |
| Test duration per axis | 2.5 h |

Resistance to ageing, humidity and penetration of solids

| | |
|------------|-----------------|
| Dry heat | 168 h/100°C |
| Humid heat | 48 h/30 °C/92 % |

Insulation resistance

| | |
|--|-----------------------|
| Specification | IEC 60998-2-1:1990-04 |
| Result | Test passed |
| Insulation resistance, neighboring positions | $10^9 \Omega$ |

Glow-wire test

| | |
|------------------|-----------------------|
| Specification | IEC 60998-2-1:1990-04 |
| Result | Test passed |
| Temperature | 850 °C |
| Time of exposure | 5 s |

Mechanical strength/tumbling barrel test

PCB terminal block - MKDSO 2,5/ 3-R KMGY - 2854092

Technical data

Mechanical strength/tumbling barrel test

| | |
|-----------------------|-----------------------|
| Specification | IEC 60998-2-1:1990-04 |
| Height of fall | 50 cm |
| Number of drop cycles | 50 |

Standards and Regulations

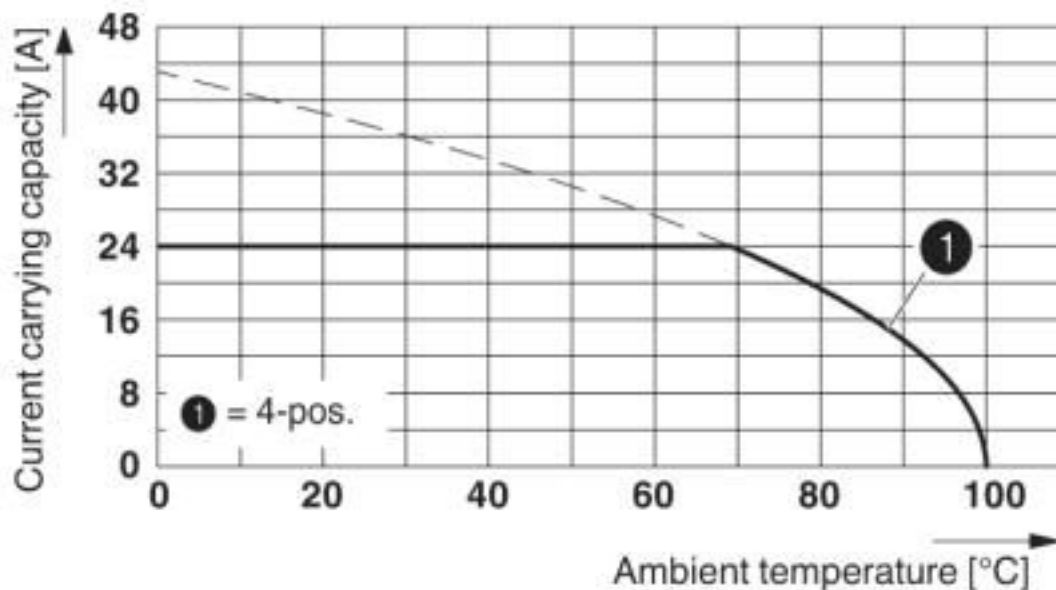
| | |
|--|--------|
| Connection in acc. with standard | EN-VDE |
| | CSA |
| Flammability rating according to UL 94 | V0 |

Environmental Product Compliance

| | |
|------------|---|
| REACH SVHC | Lead 7439-92-1 |
| China RoHS | Environmentally Friendly Use Period = 50 years |
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

Drawings

Diagram



Type: MKDSO 2,5/4...L(R)
 Test based on DIN EN 60512-5-2:2003-01
 Reduction factor = 1
 Number of positions: 4

Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27440401 |
|---------------|----------|

PCB terminal block - MKDSO 2,5/ 3-R KMGY - 2854092

Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 4.0 | 27180400 |
| eCl@ss 4.1 | 27180400 |
| eCl@ss 5.0 | 27180500 |
| eCl@ss 5.1 | 27261100 |
| eCl@ss 6.0 | 27261100 |
| eCl@ss 7.0 | 27440401 |
| eCl@ss 8.0 | 27440401 |
| eCl@ss 9.0 | 27440401 |

ETIM

| | |
|----------|----------|
| ETIM 2.0 | EC001031 |
| ETIM 3.0 | EC001031 |
| ETIM 4.0 | EC002643 |
| ETIM 5.0 | EC002643 |
| ETIM 6.0 | EC002643 |
| ETIM 7.0 | EC002643 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 31261501 |
| UNSPSC 7.0901 | 31261501 |
| UNSPSC 11 | 31261501 |
| UNSPSC 12.01 | 31261501 |
| UNSPSC 13.2 | 39121432 |
| UNSPSC 18.0 | 39121432 |
| UNSPSC 19.0 | 39121432 |
| UNSPSC 20.0 | 39121432 |
| UNSPSC 21.0 | 39121432 |

Approvals

Approvals

Approvals

CSA / IECCEB CB Scheme / VDE Gutachten mit Fertigungsüberwachung / EAC / cULus Recognized

Ex Approvals

Approval details

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Approvals

| | | | |
|----------------------------|-------|---|-------|
| CSA | | http://www.csagroup.org/services-industries/product-listing/ | 13631 |
| | B | D | |
| Nominal voltage UN | 300 V | 300 V | |
| Nominal current IN | 10 A | 10 A | |
| mm ² /AWG/kcmil | 28-12 | 28-12 | |

| | | | |
|----------------------------|-------|---|--------------|
| IECEE CB Scheme | | http://www.iecee.org/ | CB DE1-60046 |
| Nominal voltage UN | 450 V | | |
| Nominal current IN | 24 A | | |
| mm ² /AWG/kcmil | 2.5 | | |

| | | | |
|---|---------|---|----------|
| VDE Gutachten mit Fertigungsüberwachung | | http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx | 40023968 |
| Nominal voltage UN | 450 V | | |
| Nominal current IN | 24 A | | |
| mm ² /AWG/kcmil | 0.2-2.5 | | |

| | | | |
|-----|--|--|---------|
| EAC | | | B.01687 |
|-----|--|--|---------|

| | | | |
|----------------------------|-------|---|-----------------|
| cULus Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | E60425-19770427 |
| | B | D | |
| Nominal voltage UN | 300 V | 300 V | |
| Nominal current IN | 20 A | 10 A | |
| mm ² /AWG/kcmil | 30-12 | 30-12 | |

Accessories

Accessories

Mounting material

PCB terminal block - MKDSO 2,5/ 3-R KMGY - 2854092

Accessories

Shield connection clamp - ME-SAS - 2853899



Shield connection clamp for printed circuit terminal block

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